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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,118	02/28/2001	Thomas Schulte	10191/1566	5238
26646	7590	11/17/2004	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			DICUS, TAMRA	
			ART UNIT	PAPER NUMBER
			1774	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/719,118

Applicant(s)

SCHULTE ET AL.

Examiner

Tamra L. Dicus

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Prosecution is reopened and the finality of the last Office action is withdrawn. A new grounds of rejection is presented below.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what "currentless deposition" encompasses. The originally filed disclosure does not contain a definition of such term. Thus the Examiner will interpret currentless deposition as any deposition method without an electric current.

Claim 23 recites the limitation "adjacent particles of the carrier" in line 2. There is insufficient antecedent basis for this limitation in the claim. Instant claim 14 does not contain any particles related to the carrier.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-19 and 22-24 are rejected under 35 U.S.C. 103(a) as being obvious over USPN 6,140,906 to Kaihara et al. in view of USPN 6,076,965 to Rosen et al.

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Kaihara discloses various embodiments of a resistive temperature sensor and making the sensor comprising a multilayered electrode element (62 and 63) of alternatively layered insulating and conductor layers laminated on temperatures sensing section 61 (equivalent to the temperature sensor is situated in a layer of a laminated layer sensor of instant claim 17). The insulating material is comprised of metal oxide (such as aluminum oxide instant claim 18). The surfaces of the electrode sections are then printed with a palladium catalyst for nickel plating and then a heat treatment is executed, thereafter a nickel electroless plating is applied (instant claims 15 & 19). See Figure 11, col. 2, lines 5-25, col. 21, lines 1-15, lines 30-35, col. 22, lines 42-55, and patented claims 1, 3, and 12. Kaihara does not the heat/thermal treating causes as per instant claims 22 and 23. However, one having ordinary skill in the art would expect these causes to be present as the same materials and processes are used. Kaihara does not teach the carrier is used as a powder (instant claim 16), however, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Kaihara does not teach an evaluation device. However, Rosen teaches a monocrystal of nickel cobalt-manganese oxide and method of a sensor formed where an evaluation device (an electrical resistance measuring device 110 is connected to the sensing element (temperature sensor) via leads 104 and 106 (conductor tracks), made of metal oxide and using electroless plating. See col. 7, lines 10-49 and Figure 4, depicting the leads to measure resistance as claimed in instant claim 14. Rosen teaches motivation to use an evaluation device with sensing elements because Rosen teaches a sensing element connected to an evaluation device to measure

temperature-dependent change at col. 7, lines 19-43. Further meeting instant claim 24, in regards to the “loading the at least one conductor track with an alternating current voltage”, Rosen teaches at col. 7, lines 35-45, a circuit can be used to measure unknown temperature, which inherently provides alternating current. Hence, it would have been obvious to one of ordinary skill in the art to modify the temperature sensor to include an evaluation device since Rosen teaches sensing elements connected to electrical resistance measuring devices for the purpose of providing connections in series as taught by Rosen at col. 7, lines 14-49. Also it would have been obvious to one of ordinary skill in the art to provide loading to a conductor track since Rosen teaches at col. 7, lines 34-45 using a circuit to provide the loading in order to measure unknown temperatures via resistance the circuit provides.

Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,140,906 to Kaihara et al. in view of USPN 6,076,965 to Rosen et al. and further in view of USPN 4,387,258 to Vadekar et al.

As provided above, Kaihara in view of Rosen essentially teaches the claimed invention. The combination does not disclose the way in which palladium is deposited as recited in instant claims 20 and 21. However, Vadekar teaches selective hydrogenation using palladium on crystalline silica teaching it is known to provide a substrate with deposited palladium (inclusive of palladium nuclei) at col. 3, lines 34-68 via vapor or gas phase deposition, and reduction (initially deposited by reduction) because palladium crystallites (palladium used as seed crystals for deposition, claim 22) have excellent results from metal surface area measurements as the crystallite disperses well with metal. Hence, it would have been obvious to one of ordinary skill in the art to modify the combination to further include palladium or their seeds for the purpose of

providing have excellent results from metal surface area measurements as the crystallite disperses well with metal as taught by Vadekar at col. 3, lines 34-68.

***Response to Arguments***

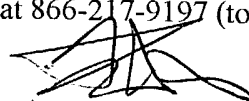
Rosen is still used to teach the evaluation devices in use with temperature sensors. Vadekar is still used to teach palladium in the form of crystals and formation via reduction.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tamra L. Dicus  
Examiner  
Art Unit 1774

11/15/04



RENA DYE  
SUPERVISORY PATENT EXAMINER  
A.U. 1774 11/15/04